



## **3D production of terrestrial (and celestial) globes – Museum of Virtual Globes and digital virtual restoration**

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Very little information can be found even in the Hungarian cartographic literature on the history of making terrestrial globes in Hungary – particularly at the Cartographic Enterprise (Cartographia) – after World War II in the second half of the past century.

The only general publication in Hungarian related to this topic is a book, „A föld- és éggömbök története” (The history of terrestrial and celestial globes) written by István Klinghammer. His book, however, deals very little with the production of globes in Hungary in the mentioned period. We wish to fill this gap in the Hungarian cartography history in a modern way.

Only the minority of these globes can be found even in the Map Room of the National Széchényi Library. And they are carefully kept (each in boxes) to save them from dust. However, these globes cannot be seen by the visitors in display-cases.

Our project has two objectives:

- Establishment of a “Museum of Virtual Globes” by developing a technology never used before in Hungary. This would “store” the terrestrial and celestial globes and would make them available on the Internet – both historical and modern globes.
- Development of a method for the “digital virtual restoration” of the damage on the various globes. Namely, the old globes, which have a great cultural value, can be

restored without any risk.

As a result now, in the first phase, on one hand the improved version of two “modern” globes made by the Cartographic Enterprise (Cartographia) in the fourth quarter of the past century would be available for the public. On the other hand two globes (a terrestrial and a celestial one from the 17<sup>th</sup> century) of Blaeu – the great mapmaker and publisher in Amsterdam – which have great cultural value, can be seen and studied without any risk.

The spherical map content can be studied and analysed from any direction with the help of a virtual, high-resolution 3D model reproduced after the original colour globes.